



REPLACEMENT SHEET

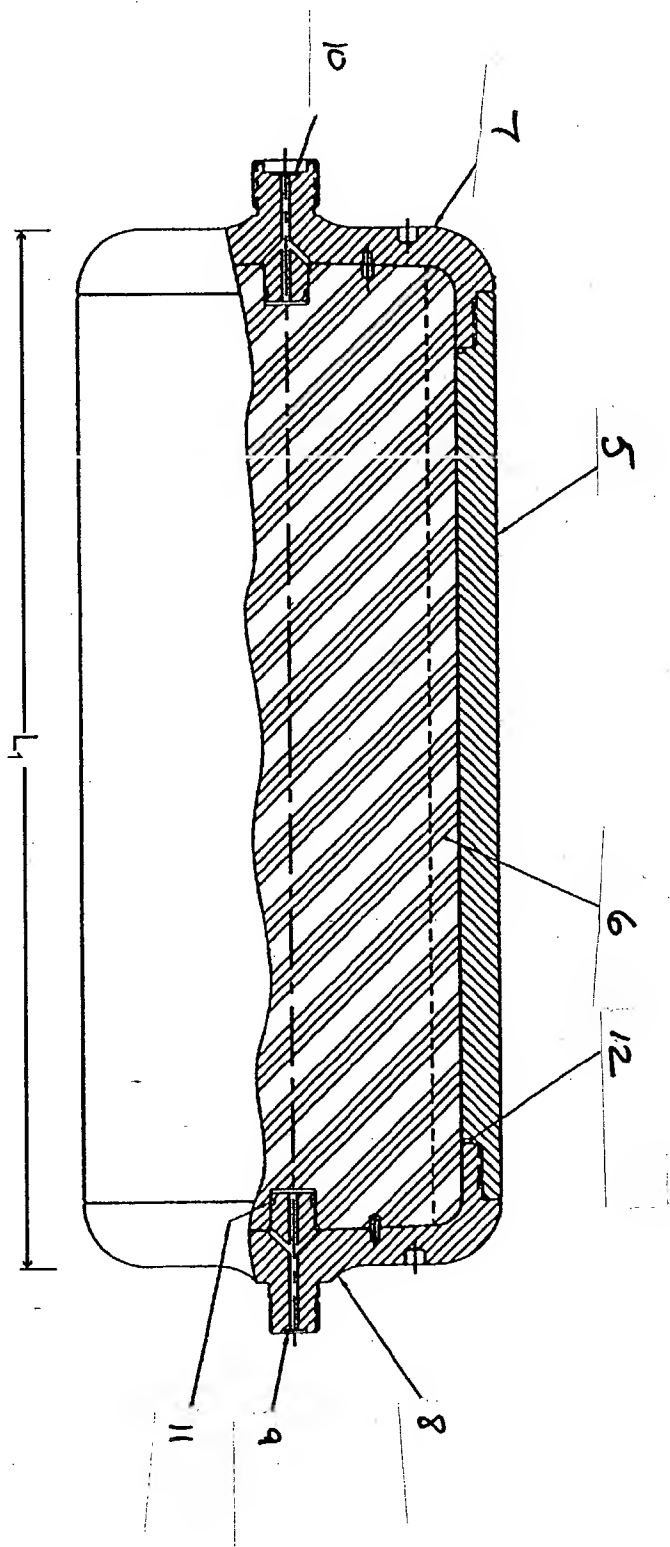
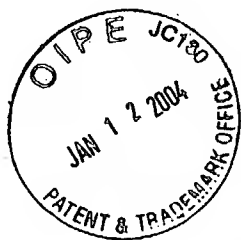


FIG. 2A

FIG. 2B



REPLACEMENT SHEET

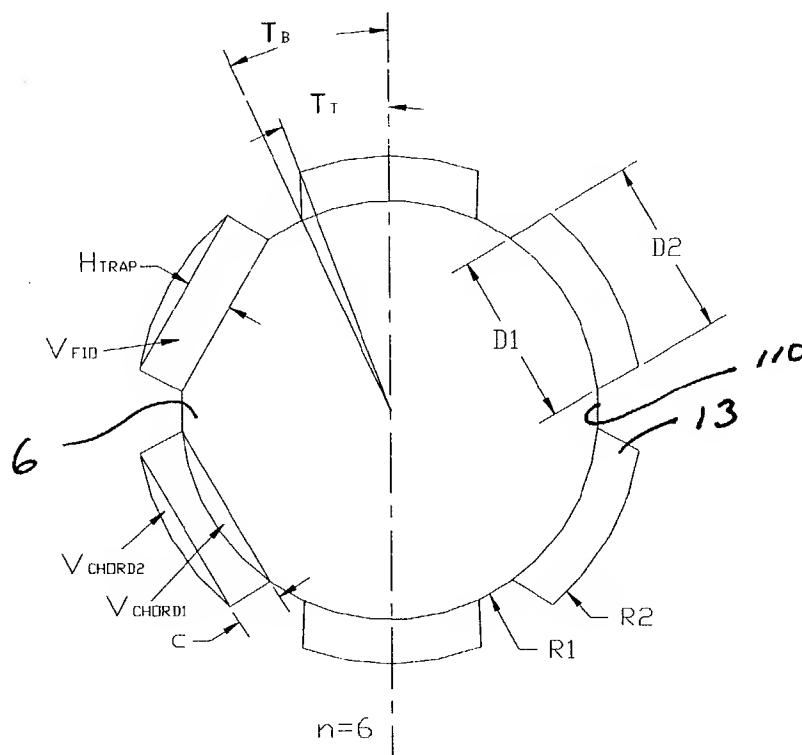


Figure 3B



REPLACEMENT SHEET

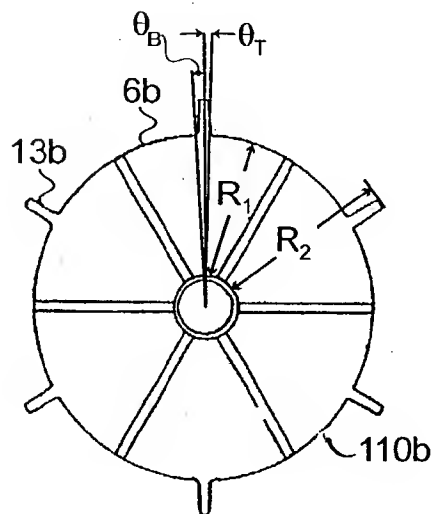


FIG. 6



REPLACEMENT SHEET

<u>D2</u> =	<u>Lateral distance across fin top</u>	<u>0.083</u>	<u>in</u>
<u>D1</u> =	<u>Lateral distance across fin bottom</u>	<u>0.114</u>	<u>in</u>
<u>R1</u> =	<u>Inner radius of the core</u>	<u>2.145</u>	<u>in</u>
<u>R2</u> =	<u>Outer radius of the core</u>	<u>2.598</u>	<u>in</u>
<u>n</u> =	<u>Number of fins</u>	<u>6</u>	<u>number of</u>
<u>L</u> =	<u>Length of core</u>	<u>30.089</u>	<u>in</u>
<u>THETA_T</u> =	<u>Angle formed by one half the fin top surface</u>	<u>0.016</u>	<u>radians</u>
<u>THETA_B</u> =	<u>Angle formed by one half the fin bottom surface</u>	<u>0.027</u>	<u>radians</u>
<u>c</u> =	<u>Length of segment connecting endpoints of D₁ and D₂</u>	<u>0.454</u>	<u>in</u>
<u>H_{TRAP}</u> =	<u>Height of a trapezoid between D₁ and D₂</u>	<u>0.453</u>	<u>in</u>
<u>V_{TRAP}</u> =	<u>Volume of a trapezoid included between D₁, D₂, and height H_{TRAP}</u>	<u>1.344</u>	<u>in²</u>
<u>THETA₁</u> =	<u>Central angle of chord formed at fin bottom</u>	<u>0.053</u>	<u>radians</u>
<u>V_{CHORD1}</u> =	<u>Volume formed by chord at fin bottom</u>	<u>0.00173</u>	<u>in²</u>
<u>THETA₂</u> =	<u>Central angle of chord formed at fin top</u>	<u>0.032</u>	<u>radians</u>
<u>V_{CHORD2}</u> =	<u>Volume formed by chord at fin top</u>	<u>0.00055</u>	<u>in²</u>
<u>V_{FIN}</u> =	<u>Volume of fin, equal to V_{TRAP} + V_{CHORD2} - V_{CHORD1}</u>	<u>1.343</u>	<u>in²</u>
<u>V_{R1}</u> =	<u>Volume of cylinder with a radius of R₁</u>	<u>434.910</u>	<u>in²</u>
<u>V_{CORE}</u> =	<u>Volume of Core, equal to nV_{FIN} + V_{R1}</u>	<u>442.966</u>	<u>in³</u>
<u>V_{R2}</u> =	<u>Volume of cylinder with a radius of R₂</u>	<u>638.004</u>	<u>in³</u>
<u>V_{LIQUID}</u> =	<u>Volume of liquid, equal to V_{R2} - V_{CORE}</u>	<u>195.038</u>	<u>in³</u>
<u>V_{LIQUID}</u> =	<u>Volume of liquid, equal to V_{R2} - V_{CORE}</u>	<u>3196.09</u>	<u>mL</u>

Figure 7

REPLACEMENT SHEET

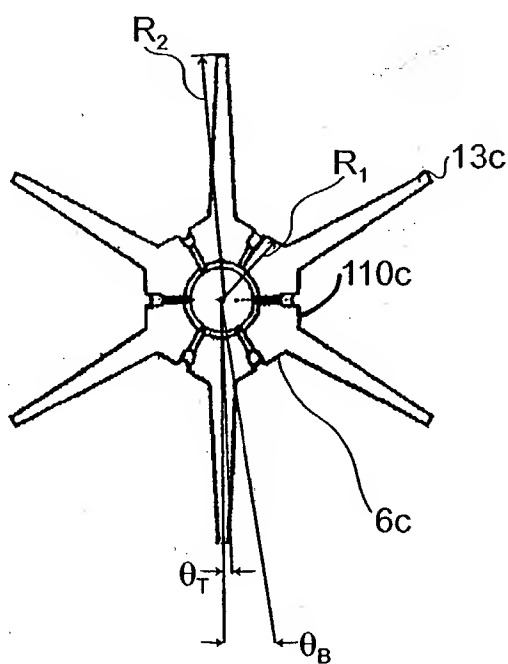


FIG. 8

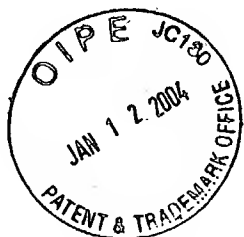


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<u>D2</u> =	<u>Lateral distance across fin top</u>	<u>0.1</u>	<u>in</u>
<u>D1</u> =	<u>Lateral distance across fin bottom</u>	<u>0.25</u>	<u>in</u>
<u>R1</u> =	<u>Inner radius of the core</u>	<u>0.825</u>	<u>in</u>
<u>R2</u> =	<u>Outer radius of the core</u>	<u>2.598</u>	<u>in</u>
<u>n</u> =	<u>Number of fins</u>	<u>6</u>	<u>number of</u>
<u>L</u> =	<u>Length of core</u>	<u>30.089</u>	<u>in</u>
<u>THETA_T</u> =	<u>Angle formed by one half the fin top surface</u>	<u>0.019</u>	<u>radians</u>
<u>THETA_B</u> =	<u>Angle formed by one half the fin bottom surface</u>	<u>0.152</u>	<u>radians</u>
<u>c</u> =	<u>Length of segment connecting endpoints of D₁ and D₂</u>	<u>1.784</u>	<u>in</u>
<u>H_{TRAP}</u> =	<u>Height of a trapezoid between D₁ and D₂</u>	<u>1.782</u>	<u>in</u>
<u>V_{TRAP}</u> =	<u>Volume of a trapezoid included between D₁, D₂, and height H_{TRAP}</u>	<u>9.383</u>	<u>in²</u>
<u>THETA₁</u> =	<u>Central angle of chord formed at fin bottom</u>	<u>0.304</u>	<u>radians</u>
<u>V_{CHORD1}</u> =	<u>Volume formed by chord at fin bottom</u>	<u>0.04782</u>	<u>in²</u>
<u>THETA₂</u> =	<u>Central angle of chord formed at fin top</u>	<u>0.038</u>	<u>radians</u>
<u>V_{CHORD2}</u> =	<u>Volume formed by chord at fin top</u>	<u>0.00097</u>	<u>in²</u>
<u>V_{FIN}</u> =	<u>Volume of fin, equal to V_{TRAP} + V_{CHORD2} - V_{CHORD1}</u>	<u>9.337</u>	<u>in²</u>
<u>V_{R1}</u> =	<u>Volume of cylinder with a radius of R₁</u>	<u>64.336</u>	<u>in²</u>
<u>V_{CORE}</u> =	<u>Volume of Core, equal to nV_{FIN} + V_{R1}</u>	<u>120.356</u>	<u>in³</u>
<u>V_{R2}</u> =	<u>Volume of cylinder with a radius of R₂</u>	<u>638.004</u>	<u>in³</u>
<u>V_{LIQUID}</u> =	<u>Volume of liquid, equal to V_{R2} - V_{CORE}</u>	<u>517.648</u>	<u>in³</u>
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<u>V_{LIQUID}</u> =	<u>Volume of liquid, equal to V_{R2} - V_{CORE}</u>	<u>8482.73</u>	<u>mL</u>

Figure 9

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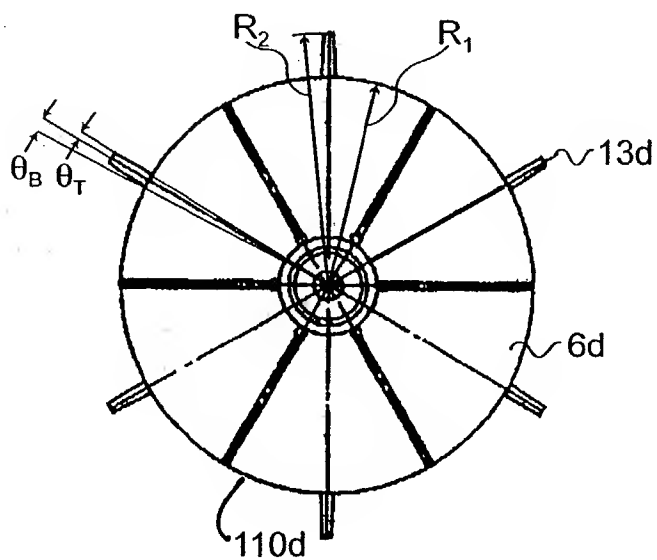


FIG. 10



REPLACEMENT SHEET

<u>D2</u> =	<u>Lateral distance across fin top</u>	<u>0.083</u>	<u>in</u>
<u>D1</u> =	<u>Lateral distance across fin bottom</u>	<u>0.114</u>	<u>in</u>
<u>R1</u> =	<u>Inner radius of the core</u>	<u>2.145</u>	<u>in</u>
<u>R2</u> =	<u>Outer radius of the core</u>	<u>2.598</u>	<u>in</u>
<u>n</u> =	<u>Number of fins</u>	<u>6</u>	<u>number of fins</u>
<u>L</u> =	<u>Length of core</u>	<u>30.089</u>	<u>in</u>
<u>THETA_T</u> =	<u>Angle formed by one half the fin top surface</u>	<u>0.016</u>	<u>radians</u>
<u>THETA_B</u> =	<u>Angle formed by one half the fin bottom surface</u>	<u>0.027</u>	<u>radians</u>
<u>c</u> =	<u>Length of segment connecting endpoints of D₁ and D₂</u>	<u>0.454</u>	<u>in</u>
<u>TRAP</u> =	<u>Height of a trapezoid between D₁ and D₂</u>	<u>0.453</u>	<u>in</u>
<u>V_{TRAP}</u> =	<u>Volume of a trapezoid included between D₁, D₂, and height</u>	<u>1.344</u>	<u>in²</u>
<u>THETA₁</u> =	<u>Central angle of chord formed at fin bottom</u>	<u>0.053</u>	<u>radians</u>
<u>V_{CHORD1}</u> =	<u>Volume formed by chord at fin bottom</u>	<u>0.00173</u>	<u>in²</u>
<u>THETA₂</u> =	<u>Central angle of chord formed at fin top</u>	<u>0.032</u>	<u>radians</u>
<u>V_{CHORD2}</u> =	<u>Volume formed by chord at fin top</u>	<u>0.00055</u>	<u>in²</u>
<u>V_{FIN}</u> =	<u>Volume of fin, equal to V_{TRAP} + V_{CHORD2} - V_{CHORD1}</u>	<u>1.343</u>	<u>in²</u>
<u>V_{R1}</u> =	<u>Volume of cylinder with a radius of R₁</u>	<u>434.910</u>	<u>in²</u>
<u>V_{CORE}</u> =	<u>Volume of Core, equal to nV_{FIN} + V_{R1}</u>	<u>442.966</u>	<u>in³</u>
<u>V_{R2}</u> =	<u>Volume of cylinder with a radius of R₂</u>	<u>638.004</u>	<u>in³</u>
<u>V_{LIQUID}</u> =	<u>Volume of liquid, equal to V_{R2} - V_{CORE}</u>	<u>195.038</u>	<u>in³</u>
<u>V_{LIQUID}</u> =	<u>Volume of liquid, equal to V_{R2} - V_{CORE}</u>	<u>3196.09</u>	<u>mL</u>

Figure 11

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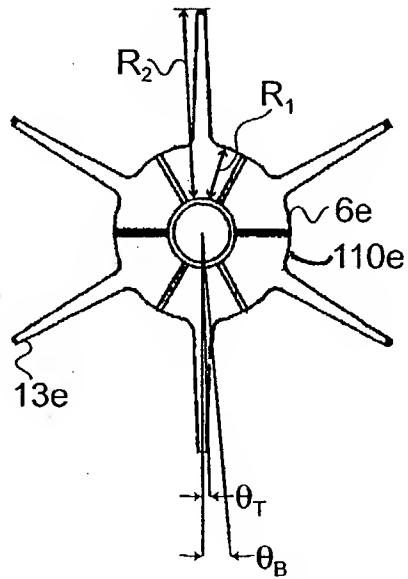
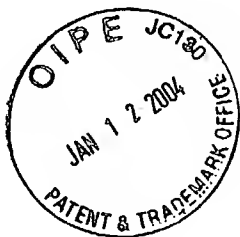


FIG. 12



REPLACEMENT SHEET

<u>D2</u> =	<u>Lateral distance across fin top</u>	<u>0.113</u>	<u>in</u>
<u>D1</u> =	<u>Lateral distance across fin bottom</u>	<u>0.223</u>	<u>in</u>
<u>R1</u> =	<u>Inner radius of the core</u>	<u>1.052</u>	<u>in</u>
<u>R2</u> =	<u>Outer radius of the core</u>	<u>2.598</u>	<u>in</u>
<u>n</u> =	<u>Number of fins</u>	<u>6</u>	<u>number of</u>
<u>L</u> =	<u>Length of core</u>	<u>30.089</u>	<u>in</u>
<u>THETA_T</u> =	<u>Angle formed by one half the fin top surface</u>	<u>0.022</u>	<u>radians</u>
<u>THETA_B</u> =	<u>Angle formed by one half the fin bottom surface</u>	<u>0.106</u>	<u>radians</u>
<u>c</u> =	<u>Length of segment connecting endpoints of D₁ and D₂</u>	<u>1.552</u>	<u>in</u>
<u>H_{TRAP}</u> =	<u>Height of a trapezoid between D₁ and D₂</u>	<u>1.551</u>	<u>in</u>
<u>V_{TRAP}</u> =	<u>Volume of a trapezoid included between D₁, D₂, and height H_{TRAP}</u>	<u>7.842</u>	<u>in²</u>
<u>THETA₁</u> =	<u>Central angle of chord formed at fin bottom</u>	<u>0.212</u>	<u>radians</u>
<u>V_{CHORD1}</u> =	<u>Volume formed by chord at fin bottom</u>	<u>0.02652</u>	<u>in²</u>
<u>THETA₂</u> =	<u>Central angle of chord formed at fin top</u>	<u>0.043</u>	<u>radians</u>
<u>V_{CHORD2}</u> =	<u>Volume formed by chord at fin top</u>	<u>0.00139</u>	<u>in²</u>
<u>V_{FIN}</u> =	<u>Volume of fin, equal to V_{TRAP} + V_{CHORD2} - V_{CHORD1}</u>	<u>7.817</u>	<u>in²</u>
<u>V_{R1}</u> =	<u>Volume of cylinder with a radius of R₁</u>	<u>104.611</u>	<u>in²</u>
<u>V_{CORE}</u> =	<u>Volume of Core, equal to nV_{FIN} + V_{R1}</u>	<u>151.511</u>	<u>in³</u>
<u>V_{R2}</u> =	<u>Volume of cylinder with a radius of R₂</u>	<u>638.004</u>	<u>in³</u>
<u>V_{LIQUID}</u> =	<u>Volume of liquid, equal to V_{R2} - V_{CORE}</u>	<u>486.493</u>	<u>in³</u>
<u>V_{LIQUID}</u> =	<u>Volume of liquid, equal to V_{R2} - V_{CORE}</u>	<u>7972.19</u>	<u>mL</u>

Figure 13

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<u>D2</u> =	<u>Lateral distance across fin top</u>	<u>0</u>	<u>in</u>
<u>D1</u> =	<u>Lateral distance across fin bottom</u>	<u>0</u>	<u>in</u>
<u>R1</u> =	<u>Inner radius of the core</u>	<u>2.561</u>	<u>in</u>
<u>R2</u> =	<u>Outer radius of the core</u>	<u>2.598</u>	<u>in</u>
<u>n</u> =	<u>Number of fins</u>	<u>0</u>	<u>number of</u>
<u>L</u> =	<u>Length of core</u>	<u>30.089</u>	<u>in</u>
<u>THETA_T</u> =	<u>Angle formed by one half the fin top surface</u>	<u>0.000</u>	<u>radians</u>
<u>THETA_B</u> =	<u>Angle formed by one half the fin bottom surface</u>	<u>0.000</u>	<u>radians</u>
<u>c</u> =	<u>Length of segment connecting endpoints of D₁ and D₂</u>	<u>0.037</u>	<u>in</u>
<u>H_{TRAP}</u> =	<u>Height of a trapezoid between D₁ and D₂</u>	<u>0.037</u>	<u>in</u>
<u>V_{TRAP}</u> =	<u>Volume of a trapezoid included between D₁, D₂, and height H_{TRAP}</u>	<u>0.000</u>	<u>in^2</u>
<u>THETA₁</u> =	<u>Central angle of chord formed at fin bottom</u>	<u>0.000</u>	<u>radians</u>
<u>V_{CHORD1}</u> =	<u>Volume formed by chord at fin bottom</u>	<u>0.00000</u>	<u>in^2</u>
<u>THETA₂</u> =	<u>Central angle of chord formed at fin top</u>	<u>0.000</u>	<u>radians</u>
<u>V_{CHORD2}</u> =	<u>Volume formed by chord at fin top</u>	<u>0.00000</u>	<u>in^2</u>
<u>V_{FIN}</u> =	<u>Volume of fin, equal to V_{TRAP} + V_{CHORD2} - V_{CHORD1}</u>	<u>0.000</u>	<u>in^2</u>
<u>V_{R1}</u> =	<u>Volume of cylinder with a radius of R₁</u>	<u>619.960</u>	<u>in^2</u>
<u>V_{CORE}</u> =	<u>Volume of Core, equal to nV_{FIN} + V_{R1}</u>	<u>619.960</u>	<u>in^3</u>
<u>V_{R2}</u> =	<u>Volume of cylinder with a radius of R₂</u>	<u>638.004</u>	<u>in^3</u>
<u>V_{LIQUID}</u> =	<u>Volume of liquid, equal to V_{R2} - V_{CORE}</u>	<u>18.043</u>	<u>in^3</u>
<u>V_{LIQUID}</u> =	<u>Volume of liquid, equal to V_{R2} - V_{CORE}</u>	<u>295.67</u>	<u>mL</u>

Figure 15

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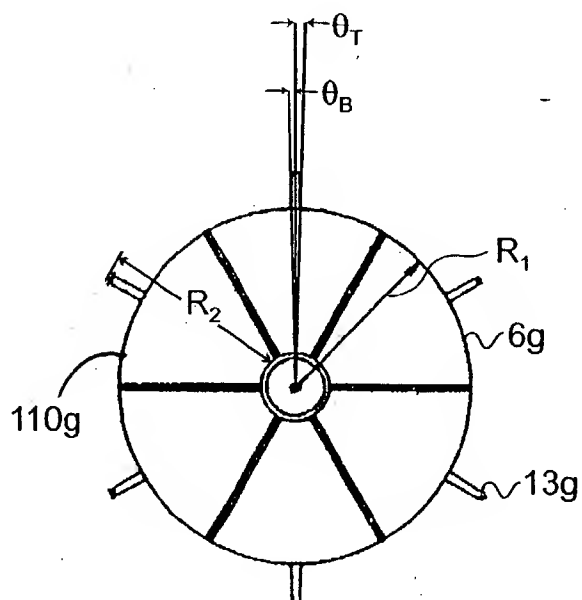


FIG. 16



REPLACEMENT SHEET

$D_2 =$	Lateral distance across fin top	<u>0.083</u>	<u>in</u>
$D_1 =$	Lateral distance across fin bottom	<u>0.114</u>	<u>in</u>
$R_1 =$	Inner radius of the core	<u>2.145</u>	<u>in</u>
$R_2 =$	Outer radius of the core	<u>2.598</u>	<u>in</u>
$n =$	Number of fins	<u>6</u>	<u>number of</u>
$L =$	Length of core	<u>15.043</u>	<u>in</u>
$\text{THETA}_T =$	Angle formed by one half the fin top surface	<u>0.016</u>	<u>radians</u>
$\text{THETA}_B =$	Angle formed by one half the fin bottom surface	<u>0.027</u>	<u>radians</u>
$C =$	Length of segment connecting endpoints of D_1 and D_2	<u>0.454</u>	<u>in</u>
$H_{\text{TRAP}} =$	Height of a trapezoid between D_1 and D_2	<u>0.453</u>	<u>in</u>
$V_{\text{TRAP}} =$	Volume of a trapezoid included between D_1 , D_2 , and height H_{TRAP}	<u>0.672</u>	<u>in^2</u>
$\text{THETA}_1 =$	Central angle of chord formed at fin bottom	<u>0.053</u>	<u>radians</u>
$V_{\text{CHORD1}} =$	Volume formed by chord at fin bottom	<u>0.00087</u>	<u>in^2</u>
$\text{THETA}_2 =$	Central angle of chord formed at fin top	<u>0.032</u>	<u>radians</u>
$V_{\text{CHORD2}} =$	Volume formed by chord at fin top	<u>0.00028</u>	<u>in^2</u>
$V_{\text{FIN}} =$	Volume of fin, equal to $V_{\text{TRAP}} + V_{\text{CHORD2}} - V_{\text{CHORD1}}$	<u>0.671</u>	<u>in^2</u>
$V_{R1} =$	Volume of cylinder with a radius of R_1	<u>217.433</u>	<u>in^2</u>
$V_{\text{CORE}} =$	Volume of Core, equal to $nV_{\text{FIN}} + V_{R1}$	<u>221.461</u>	<u>in^3</u>
$V_{R2} =$	Volume of cylinder with a radius of R_2	<u>318.970</u>	<u>in^3</u>
$V_{\text{LIQUID}} =$	Volume of liquid, equal to $V_{R2} - V_{\text{CORE}}$	<u>97.509</u>	<u>in^3</u>
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$V_{\text{LIQUID}} =$	Volume of liquid, equal to $V_{R2} - V_{\text{CORE}}$	<u>1597.89</u>	<u>mL</u>

Figure 17

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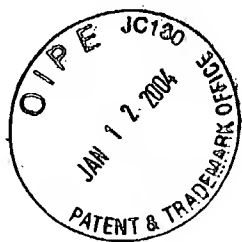


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<u>D2</u> =	<u>Lateral distance across fin top</u>	<u>1.296</u>	<u>in</u>
<u>D1</u> =	<u>Lateral distance across fin bottom</u>	<u>1.327</u>	<u>in</u>
<u>R1</u> =	<u>Inner radius of the core</u>	<u>2.145</u>	<u>in</u>
<u>R2</u> =	<u>Outer radius of the core</u>	<u>2.598</u>	<u>in</u>
<u>n</u> =	<u>Number of fins</u>	<u>6</u>	<u>number of fins</u>
<u>L</u> =	<u>Length of core</u>	<u>15.043</u>	<u>in</u>
<u>THETA_T</u> =	<u>Angle formed by one half the fin top surface</u>	<u>0.252</u>	<u>radians</u>
<u>THETA_B</u> =	<u>Angle formed by one half the fin bottom surface</u>	<u>0.314</u>	<u>radians</u>
<u>c</u> =	<u>Length of segment connecting endpoints of D₁ and D₂</u>	<u>0.476</u>	<u>in</u>
<u>H_{TRAP}</u> =	<u>Height of a trapezoid between D₁ and D₂</u>	<u>0.476</u>	<u>in</u>
<u>V_{TRAP}</u> =	<u>Volume of a trapezoid included between D₁, D₂, and height H_{TRAP}</u>	<u>9.393</u>	<u>in²</u>
<u>THETA₁</u> =	<u>Central angle of chord formed at fin bottom</u>	<u>0.629</u>	<u>radians</u>
<u>V_{CHORD1}</u> =	<u>Volume formed by chord at fin bottom</u>	<u>1.40699</u>	<u>in²</u>
<u>THETA₂</u> =	<u>Central angle of chord formed at fin top</u>	<u>0.504</u>	<u>radians</u>
<u>V_{CHORD2}</u> =	<u>Volume formed by chord at fin top</u>	<u>1.07062</u>	<u>in²</u>
<u>V_{FIN}</u> =	<u>Volume of fin, equal to V_{TRAP} + V_{CHORD2} - V_{CHORD1}</u>	<u>9.056</u>	<u>in²</u>
<u>V_{R1}</u> =	<u>Volume of cylinder with a radius of R₁</u>	<u>217.433</u>	<u>in²</u>
<u>V_{CORE}</u> =	<u>Volume of Core, equal to nV_{FIN} + V_{R1}</u>	<u>271.771</u>	<u>in³</u>
<u>V_{R2}</u> =	<u>Volume of cylinder with a radius of R₂</u>	<u>318.970</u>	<u>in³</u>
<u>V_{LIQUID}</u> =	<u>Volume of liquid, equal to V_{R2} - V_{CORE}</u>	<u>47.199</u>	<u>in³</u>
<u>V_{LIQUID}</u> =	<u>Volume of liquid, equal to V_{R2} - V_{CORE}</u>	<u>773.45</u>	<u>mL</u>

Figure 18

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<u>D2</u> =	<u>Lateral distance across fin top</u>	<u>1.85</u>	<u>in</u>
<u>D1</u> =	<u>Lateral distance across fin bottom</u>	<u>1.881</u>	<u>in</u>
<u>R1</u> =	<u>Inner radius of the core</u>	<u>2.145</u>	<u>in</u>
<u>R2</u> =	<u>Outer radius of the core</u>	<u>2.598</u>	<u>in</u>
<u>n</u> =	<u>Number of fins</u>	<u>6</u>	<u>number of</u>
<u>L</u> =	<u>Length of core</u>	<u>15.043</u>	<u>in</u>
<u>THETA_T</u> =	<u>Angle formed by one half the fin top surface</u>	<u>0.364</u>	<u>radians</u>
<u>THETA_B</u> =	<u>Angle formed by one half the fin bottom surface</u>	<u>0.454</u>	<u>radians</u>
<u>c</u> =	<u>Length of segment connecting endpoints of D₁ and D₂</u>	<u>0.500</u>	<u>in</u>
<u>H_{TRAP}</u> =	<u>Height of a trapezoid between D₁ and D₂</u>	<u>0.500</u>	<u>in</u>
<u>V_{TRAP}</u> =	<u>Volume of a trapezoid included between D₁, D₂, and height H_{TRAP}</u>	<u>14.029</u>	<u>in^2</u>
<u>THETA₁</u> =	<u>Central angle of chord formed at fin bottom</u>	<u>0.908</u>	<u>radians</u>
<u>V_{CHORD1}</u> =	<u>Volume formed by chord at fin bottom</u>	<u>4.14026</u>	<u>in^2</u>
<u>THETA₂</u> =	<u>Central angle of chord formed at fin top</u>	<u>0.728</u>	<u>radians</u>
<u>V_{CHORD2}</u> =	<u>Volume formed by chord at fin top</u>	<u>3.17992</u>	<u>in^2</u>
<u>V_{FIN}</u> =	<u>Volume of fin, equal to V_{TRAP} + V_{CHORD2} - V_{CHORD1}</u>	<u>13.069</u>	<u>in^2</u>
<u>V_{R1}</u> =	<u>Volume of cylinder with a radius of R₁</u>	<u>217.433</u>	<u>in^2</u>
<u>V_{CORE}</u> =	<u>Volume of Core, equal to nV_{FIN} + V_{R1}</u>	<u>295.848</u>	<u>in^3</u>
<u>V_{R2}</u> =	<u>Volume of cylinder with a radius of R₂</u>	<u>318.970</u>	<u>in^3</u>
<u>V_{LIQUID}</u> =	<u>Volume of liquid, equal to V_{R2} - V_{CORE}</u>	<u>23.122</u>	<u>in^3</u>
<u>V_{LIQUID}</u> =	<u>Volume of liquid, equal to V_{R2} - V_{CORE}</u>	<u>378.90</u>	<u>mL</u>

Figure 19

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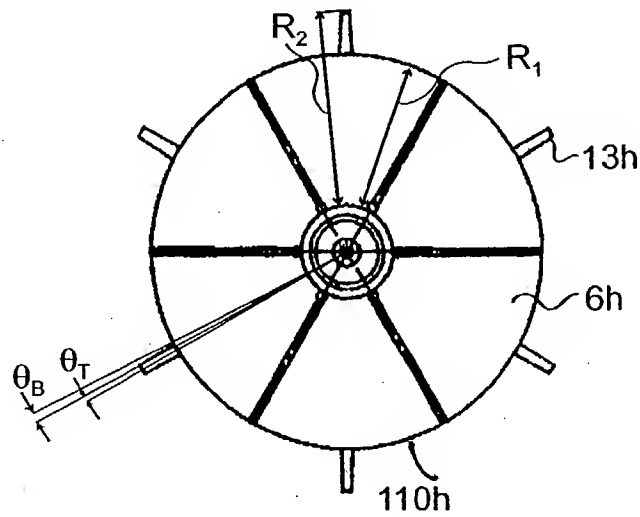
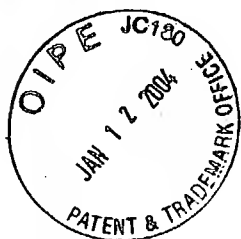


FIG. 20

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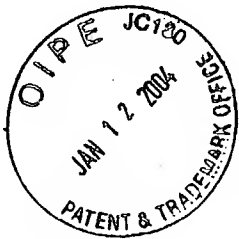


REPLACEMENT SHEET

<u>D2</u> =	<u>Lateral distance across fin top</u>	<u>0.114</u>	<u>in</u>
<u>D1</u> =	<u>Lateral distance across fin bottom</u>	<u>0.145</u>	<u>in</u>
<u>R1</u> =	<u>Inner radius of the core</u>	<u>2.145</u>	<u>in</u>
<u>R2</u> =	<u>Outer radius of the core</u>	<u>2.598</u>	<u>in</u>
<u>n</u> =	<u>Number of fins</u>	<u>6</u>	<u>number of</u>
<u>L</u> =	<u>Length of core</u>	<u>15.043</u>	<u>in</u>
<u>THETA_T</u> =	<u>Angle formed by one half the fin top surface</u>	<u>0.022</u>	<u>radians</u>
<u>THETA_B</u> =	<u>Angle formed by one half the fin bottom surface</u>	<u>0.034</u>	<u>radians</u>
<u>c</u> =	<u>Length of segment connecting endpoints of D₁ and D₂</u>	<u>0.454</u>	<u>in</u>
<u>H_{TRAP}</u> =	<u>Height of a trapezoid between D₁ and D₂</u>	<u>0.454</u>	<u>in</u>
<u>V_{TRAP}</u> =	<u>Volume of a trapezoid included between D₁, D₂, and height H_{TRAP}</u>	<u>0.884</u>	<u>in²</u>
<u>THETA₁</u> =	<u>Central angle of chord formed at fin bottom</u>	<u>0.068</u>	<u>radians</u>
<u>V_{CHORD1}</u> =	<u>Volume formed by chord at fin bottom</u>	<u>0.00178</u>	<u>in²</u>
<u>THETA₂</u> =	<u>Central angle of chord formed at fin top</u>	<u>0.044</u>	<u>radians</u>
<u>V_{CHORD2}</u> =	<u>Volume formed by chord at fin top</u>	<u>0.00071</u>	<u>in²</u>
<u>V_{FIN}</u> =	<u>Volume of fin, equal to V_{TRAP} + V_{CHORD2} - V_{CHORD1}</u>	<u>0.883</u>	<u>in²</u>
<u>V_{R1}</u> =	<u>Volume of cylinder with a radius of R₁</u>	<u>217.433</u>	<u>in²</u>
<u>V_{CORE}</u> =	<u>Volume of Core, equal to nV_{FIN} + V_{R1}</u>	<u>222.729</u>	<u>in³</u>
<u>V_{R2}</u> =	<u>Volume of cylinder with a radius of R₂</u>	<u>318.970</u>	<u>in³</u>
<u>V_{LIQUID}</u> =	<u>Volume of liquid, equal to V_{R2} - V_{CORE}</u>	<u>96.241</u>	<u>in³</u>
<u>V_{LIQUID}</u> =	<u>Volume of liquid, equal to V_{R2} - V_{CORE}</u>	<u>1577.11</u>	<u>mL</u>

Figure 21

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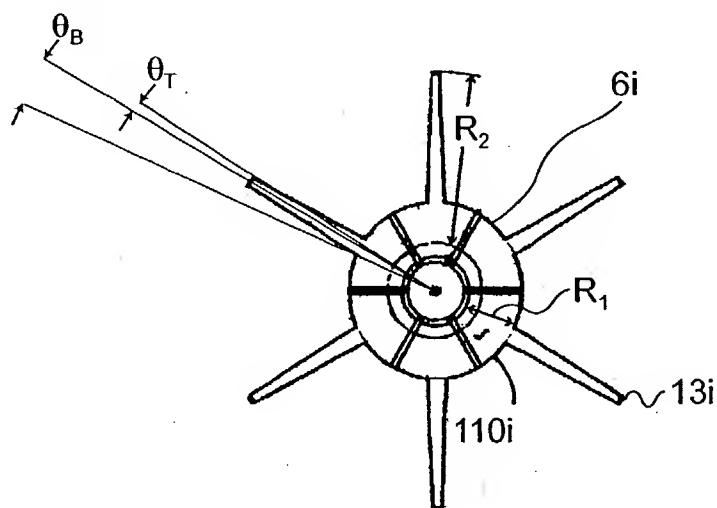


FIG. 22



REPLACEMENT SHEET

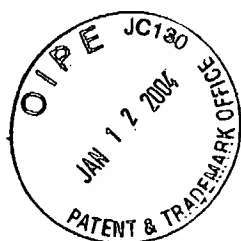
<u>D2</u> =	<u>Lateral distance across fin top</u>	<u>0.113</u>	<u>in</u>
<u>D1</u> =	<u>Lateral distance across fin bottom</u>	<u>0.313</u>	<u>in</u>
<u>R1</u> =	<u>Inner radius of the core</u>	<u>1.052</u>	<u>in</u>
<u>R2</u> =	<u>Outer radius of the core</u>	<u>2.598</u>	<u>in</u>
<u>n</u> =	<u>Number of fins</u>	<u>6</u>	<u>number of</u>
<u>L</u> =	<u>Length of core</u>	<u>15.043</u>	<u>in</u>
<u>THETA_T</u> =	<u>Angle formed by one half the fin top surface</u>	<u>0.022</u>	<u>radians</u>
<u>THETA_B</u> =	<u>Angle formed by one half the fin bottom surface</u>	<u>0.149</u>	<u>radians</u>
<u>C</u> =	<u>Length of segment connecting endpoints of D₁ and D₂</u>	<u>1.560</u>	<u>in</u>
<u>H_{TRAP}</u> =	<u>Height of a trapezoid between D₁ and D₂</u>	<u>1.557</u>	<u>in</u>
<u>V_{TRAP}</u> =	<u>Volume of a trapezoid included between D₁, D₂, and height H_{TRAP}</u>	<u>4.989</u>	<u>in²</u>
<u>THETA₁</u> =	<u>Central angle of chord formed at fin bottom</u>	<u>0.299</u>	<u>radians</u>
<u>V_{CHORD1}</u> =	<u>Volume formed by chord at fin bottom</u>	<u>0.03679</u>	<u>in²</u>
<u>THETA₂</u> =	<u>Central angle of chord formed at fin top</u>	<u>0.043</u>	<u>radians</u>
<u>V_{CHORD2}</u> =	<u>Volume formed by chord at fin top</u>	<u>0.00070</u>	<u>in²</u>
<u>V_{FIN}</u> =	<u>Volume of fin, equal to V_{TRAP} + V_{CHORD2} - V_{CHORD1}</u>	<u>4.953</u>	<u>in²</u>
<u>V_{R1}</u> =	<u>Volume of cylinder with a radius of R₁</u>	<u>52.300</u>	<u>in²</u>
<u>V_{CORE}</u> =	<u>Volume of Core, equal to nV_{FIN} + V_{R1}</u>	<u>82.019</u>	<u>in³</u>
<u>V_{R2}</u> =	<u>Volume of cylinder with a radius of R₂</u>	<u>318.970</u>	<u>in³</u>
<u>V_{LIQUID}</u> =	<u>Volume of liquid, equal to V_{R2} - V_{CORE}</u>	<u>236.951</u>	<u>in³</u>
<u>V_{LIQUID}</u> =	<u>Volume of liquid, equal to V_{R2} - V_{CORE}</u>	<u>3882.94</u>	<u>mL</u>

Figure 23

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<u>D2</u> =	<u>Lateral distance across fin top</u>	<u>0</u>	<u>in</u>
<u>D1</u> =	<u>Lateral distance across fin bottom</u>	<u>0</u>	<u>in</u>
<u>R1</u> =	<u>Inner radius of the core</u>	<u>2.561</u>	<u>in</u>
<u>R2</u> =	<u>Outer radius of the core</u>	<u>2.598</u>	<u>in</u>
<u>n</u> =	<u>Number of fins</u>	<u>0</u>	<u>number of</u>
<u>L</u> =	<u>Length of core</u>	<u>15.043</u>	<u>in</u>
<u>THETA_T</u> =	<u>Angle formed by one half the fin top surface</u>	<u>0.000</u>	<u>radians</u>
<u>THETA_B</u> =	<u>Angle formed by one half the fin bottom surface</u>	<u>0.000</u>	<u>radians</u>
<u>C</u> =	<u>Length of segment connecting endpoints of D₁ and D₂</u>	<u>0.037</u>	<u>in</u>
<u>H_{TRAP}</u> =	<u>Height of a trapezoid between D₁ and D₂</u>	<u>0.037</u>	<u>in</u>
<u>V_{TRAP}</u> =	<u>Volume of a trapezoid included between D₁, D₂, and height H_{TRAP}</u>	<u>0.000</u>	<u>in²</u>
<u>THETA₁</u> =	<u>Central angle of chord formed at fin bottom</u>	<u>0.000</u>	<u>radians</u>
<u>V_{CHORD1}</u> =	<u>Volume formed by chord at fin bottom</u>	<u>0.00000</u>	<u>in²</u>
<u>THETA₂</u> =	<u>Central angle of chord formed at fin top</u>	<u>0.000</u>	<u>radians</u>
<u>V_{CHORD2}</u> =	<u>Volume formed by chord at fin top</u>	<u>0.00000</u>	<u>in²</u>
<u>V_{FIN}</u> =	<u>Volume of fin, equal to V_{TRAP} + V_{CHORD2} - V_{CHORD1}</u>	<u>0.000</u>	<u>in²</u>
<u>V_{R1}</u> =	<u>Volume of cylinder with a radius of R₁</u>	<u>309.949</u>	<u>in²</u>
<u>V_{CORE}</u> =	<u>Volume of Core, equal to nV_{FIN} + V_{R1}</u>	<u>309.949</u>	<u>in³</u>
<u>V_{R2}</u> =	<u>Volume of cylinder with a radius of R₂</u>	<u>318.970</u>	<u>in³</u>
<u>V_{LIQUID}</u> =	<u>Volume of liquid, equal to V_{R2} - V_{CORE}</u>	<u>9.021</u>	<u>in³</u>
<u>V_{LIQUID}</u> =	<u>Volume of liquid, equal to V_{R2} - V_{CORE}</u>	<u>147.82</u>	<u>mL</u>

Figure 25

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